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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/645,613      | 08/25/2000  | Jung Min Song        | CIT/K-126           | 4585             |

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EXAMINER

JOSEPH, THOMAS J

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 2174     | 6            |

DATE MAILED: 04/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                 |              |
|------------------------------|-----------------|--------------|
| <b>Office Action Summary</b> | Application No. | Applicant(s) |
|                              | 09/645,613      | SONG ET AL.  |
|                              | Examiner        | Art Unit     |
|                              | Thomas J Joseph | 2174         |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 8-25-2000.

2a) This action is FINAL.                            2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-20 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-20 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.

4) Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Specification***

1. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

2. The abstract of the disclosure is objected to because the abstract fails to provide summary 50 to 100 word summary of the invention. Further, the abstract fails to provide an explanation of the invention that is understandable by one with ordinary skill in the art. The abstract appears to be a literal translation that is not understandable to one with ordinary skill in the art. The Examiner cannot determine the intent of the Applicant for phrases and words within the abstract. These phrases and words include at least the following: "...easily understand relations between characters and changes in relations ..." and "relations". For the purpose of Examination, the Examiner interprets

these words as follows: "relations" as meaning relationships. Correction is required.

See MPEP § 608.01(b).

3. A substitute specification excluding the claims is required pursuant to 37 CFR 1.125(a) because the current specification is not understandable to one with ordinary skill in the art. The current specification appears to be a literal translation that is not understandable to one with ordinary skill in the art. Some but not necessarily all examples of such language that is not understandable includes the following: "video data structure for video browsing based on relations," cited in page 1, lines 4 – 6, cannot be comprehended using ordinary skill in the art; therefore, for the purpose of examination, the Examiner interprets the above as the data structure for storing video files; "...represented or classified into format chunk, index chunk, media chunk, segment chunk, target chunk, and/or representation chunk," cited in page 1, lines 16 – 19, cannot be comprehended by using ordinary skill in the art because the word, "chunk" is subject to various interpretations. Therefore, the Examiner for the purpose of Examination interprets the word "chunk" as a large noteworthy amount. "Accordingly, a user can select an object through a table and reproduce for display a particular segment where the object is shown in the video," as cited in page 1, lines 22 – 25, cannot be understood by one with ordinary skill in the art because the Examiner is unsure how the Applicant intends to apply the words, "object" and "segment" to the rest of the sentence; therefore, the Examiner interprets the word "object" as being either a window or an icon while interpreting the word "segment" as being a video clip. "The constant relation and variable relation between characters may also be browsed and displayed as a constant

relation and a variable relation between every characters related with a selected character," as cited by the Applicant on page 5, lines 19 – 23 cannot be understood by one with ordinary skill in the art because the Examiner is unable to determine the intent of the Applicant for the word "relation". For the purpose of examination, the word "relation" is interpreted as meaning a relationship. Also, the citation, "between every characters related with a selected character" cannot be comprehended using ordinary skill in the art. "Furthermore, the video browser of the present invention is characterized in that event segments showing constant relation and variable relation between characters is displayed as a key frame" as cited by the Applicant in page 6, lines 4 – 8 cannot be comprehended using ordinary skill in the art. Therefore, for the purpose of examination, the Examiner interprets the sentence as meaning a video browser for presenting an invention that is characterized in the event segment while showing a constant relation and a variable relation between the characters that are displayed as a key frame. "The event/object relation graph DS 119 describes a constant relation or changes in relation between characters, a relation between object and place, or a relation between object and event" as cited by the Applicant on page 8, lines 20 – 24 contains the word "relation". The Examiner is unable to determine the users intent for the word relation. For the purpose of Examination, "relation" means "relationship". The "... relation graph DS 119 includes is organized into an entity relation 120 with a return which allows a display of character relations in a tree structure ..." as cited by the Applicant on page 9, lines 22 – 25 cannot be understood by one with ordinary skill in the art because the Examiner is unable to interpret the intent by the Application for writing

the word “entity relation.” “Namely, key frames of main event segments which directly show a selected relation or key frames of secondary event segments which indirectly show the selected relation” as cited by the Applicant on page 13, 19 – 22 cannot be understood by one using ordinary skill in the art because the Examiner is unable to determine the intent of the Applicant for using the words, “main event segments” and “selected relation.” The Examiner interprets “main event segments” as video clips associated with the primary output event and the “selected relation” as a user selected relationship. The citation by the application, “displayed by connecting the time DS 113 of the segment DS 112 with the time DS 111 of the level 110 in the key frame view DS 106 of the visual DS 102” on page 14, lines 22 – 24 cannot be comprehended using ordinary skill in the art because the Examiner is unable to interpret the intent for the Applicant of the phrase, “key frame view DS 106 of the visual DS 102.” Furthermore, the data structure for browsing a video is based on a relation between characters and a variable relation between them” as cited by the Applicant on page 16, lines 18 – 20 cannot be understood using ordinary skill in the art because the Examiner is unable to determine the intent of the Applicant for the phrase, “and a variable relation between them.” For the purpose of examination, the Examiner interprets the above citation as a data structure for browsing video data that is based on the relationships between various characters.

A substitute specification filed under 37 CFR 1.125(a) must only contain subject matter from the original specification and any previously entered amendment under 37 CFR 1.121. If the substitute specification contains additional subject matter not of

record, the substitute specification must be filed under 37 CFR 1.125(b) and must be accompanied by: 1) a statement that the substitute specification contains no new matter; and 2) a marked-up copy showing the amendments to be made via the substitute specification relative to the specification at the time the substitute specification is filed.

4. A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. A statement that it contains no new matter must accompany the substitute specification filed.

#### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1 – 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claims 12 – 14 recites the limitation "DS" in "structure DS" as cited in claim 12. There is insufficient antecedent basis for this limitation in the claim. The Examiner interprets "DS" as meaning a data structure for the purpose of Examination.

8. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors. Some but not necessarily all examples of such errors include the following:

As per claims 1 and 15, reading, "... a main screen which displays video segments corresponding to significant events showing a relation between two displayed characters of said character screen according to a user selection, wherein said relation may be constant or variable" as cited in claims 1 and 15, lines 4 – 8 cannot be understood by one with ordinary skill in the art. The Examiner cannot determine the intent by the Applicant for the following word: "relation". For the purpose of Examination, the Examiner interprets the word "relation" as being a relationship.

As per claim 2, "...said video segments by a summary data of said video segments" as cited in claim 2, line 2 cannot be understood by one with ordinary skill in the art. The Examiner cannot determine the intent by the Applicant for the following phrase: "summary data". For the purpose of Examination, the Examiner interprets the phrase "summary data" as being a summary list.

As per claim 12, "...wherein the highlight view DS is organized into multiple levels which enables a display of multi-levels of highlight data and wherein the key frame view DS is organized into multiple levels which enables a display of multi-levels of summarized data" as cited in claim 12, lines 8 – 11 cannot be understood by one with ordinary skill in the art. The Examiner cannot determine the intent by the Applicant for the following words and phrases: "multi-levels" and "key frame view DS". For the purpose of Examination, the Examiner interpret the word "multi-levels" as being multiple level and the phrase "key frame view DS" as being the view of the main window.

As per claim 13, "...each actual video segment data within a video data" as cited in claim 12, lines 4 – 7 cannot be understood by one with ordinary skill in the art. The

Examiner cannot determine the intent by the Applicant for the following words and phrases: "each actual video segment data" and "within a video data". For the purpose of Examination, the Examiner interprets the phrase "each actual video segment data" as being each video segment and the phrase "within a video data" as being a video file.

The Examiner recommends that the Applicant employ a professional translator who is familiar with ordinary spoken and written English when reviewing, editing, and amending the claims.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

10. Claims 1 – 5 and 12 – 14 are rejected under 35 U.S.C. 102(a) as being anticipated by Schein et al. (US 6,323,911).

This rejection is made on the claims as best understood by the Examiner.

**Claim 1:**

Schein teaches a video browsing system (fig. 4a, #102). Schein teaches a character screen which displays characters of the video (fig. 4a, #126). Any representation of a human being or an alphanumeric symbol is considered a representation of a character. Schein teaches a main screen which displays video segments corresponding to significant events showing a relation between two displayed

characters of said character screen according to a user selection, wherein said selection may be constant or variable (fig. 4a, #126).

**Claim 2:**

Schein teaches a main screen displaying video segments by summary data of said video segments (fig. 4a, #126).

**Claim 3:**

Schein teaches a user selecting two characters through the character screen to display the video segments corresponding to significant events showing a relation between the two displayed characters (fig. 4a, #110). When the user selects a program, representations corresponding to the relationships between characters are also selected.

**Claim 4:**

Schein teaches a character relation-variable event screen which displays connections between variable relations and significant events (fig. 4a, #110).

**Claim 5:**

Schein teaches a character-variable event screen displaying either one or both the variable relations and events by key frames (fig. 4a, #110).

**Claim 12:**

Schein teaches a video browsing system (fig. 4a). Schein teaches a visualization DS which includes a highlight view DS for displaying event data by a highlight and a key frame view DS for displaying event data as key frames, wherein the highlight view DS is organized into multiple levels which enable a display of multi-levels of highlight data and

wherein the key frame view DS is organized into multiple levels which enables a display of multi-levels of summarized data (fig. 4a, #110). Schein teaches a syntactic structure DS which includes information for displaying actual video segments of a video (fig. 4a, #110). Schein teaches a semantic structure DS which includes additional information describing a video (fig. 4a). Readable information uses the semantic structure DS for providing additional information.

**Claim 13:**

Schein teaches a syntactic structure DS organized into a segment DS including actual video segment data and a time DS including corresponding temporal positions of each actual video segment data within a video data (fig. 4a, #126).

**Claim 14:**

Schein teaches a semantic structure DS organized into sub-level structures (fig. 4a). Rows demonstrate various levels.

Schein teaches an event DS which includes event information, wherein said event DS is organized into sub-level structures of a reference to segment which includes reference information necessary for displaying a video segment of a video corresponding to the event selected by a user. Further, an annotation DS includes information that connects said selected events which actual positions of said selected events within video data and information explaining said selected events (fig. 4a, #110).

Schein teaches an object which includes object information (fig. 4a, #32). Schein teaches an event/relation graph DS which includes information on at least one of constant relations between objects, variable relations between objects, or relations

between objects and events, wherein said event/object relation graph DS is organized into an entity relation with sub-level structures of a Reference to Object which connects objects having either a constant relation or variable relation, a Reference to Event that connects events which are significant to a relation between each connected objects, and a relation which includes information on a nature and title of relation between each connected objects (fig. 4a, #102).

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 6 – 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al. (US 6,323,911) as applied to claim 1 above, and further in view of Yeo et al. (US 5,831,945).

**Claim 6:**

Schein teaches a relation screen, which displays constant relations, and variable relations between characters selected from the character screen and related characters (fig. 4a).

*Schein fail to teach a tree structure. Yeo teaches constant relations and variable relations being displayed in a tree structure (fig. 4). Yeo teaches a main scene screen which displays significant events corresponding to one of either a constant relation or variable relation selected from the relation screen (fig. 4). It would have been obvious*

to one with ordinary skill in the art at the time of the invention to combine the tree structure taught by Yeo with the EPG disclosed by Schein. Doing so enables the user to view various hierarchies within the EPG.

**Claim 7:**

Yeo teaches a constant relation being displayed on a top level of said tree-like structure and variable relations being displayed on lower levels of said tree-like structure (fig. 4).

**Claim 8:**

Schein teaches a main scene screen displaying the significant events by key frames (fig. 4a, #32). The icons represent key frames.

**Claim 9:**

Schein teaches a selection screen wherein the main scene screen displaying either one or both main significant events or secondary significant events corresponding to said relation selected from the relation screen, according to a user selection through said selection screen (fig. 4a, #102).

**Claim 10:**

Schein teaches a selection screen wherein the relation screen displays constant relations and variable relations corresponding a relation type selected by a user through the said selection screen (fig. 4a, #102).

**Claim 11:**

Yeo teaches a relation type may be one of a family relation, a business relation, or a social relation (fig. 4). The use of icons represents various family, business, and social relations.

13. Claims 15 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al. (US 6,323,911) and Yeo et al. (US 5,831,945).

**Claim 15:**

Schein teaches video browsing (fig. 4a, #102). Schein teaches a character screen, which displays characters of a video (fig. 4a, #126). Schein teaches a main screen which displays video segments corresponding to significant events showing a relation between two displayed characters of said character screen according to a user selection, wherein said relation may be constant or variable (fig. 4a, #126).

Schein fails to teach a tree structure. Yeo teaches a relation screen which displays constant relations and variable relations between a character selected from the character screen and related characters, wherein said constant relations and variable relations are displayed in a tree-like structure (fig. 4). It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the tree structure taught by Yeo with the EPG disclosed by Schein. Doing so enables the user to view various hierarchies within the EPG.

**Claim 16:**

Yeo teaches a constant relation being displayed on a top level of the said tree-like structure and variable relations are displayed on lower levels of the said tree structure (fig. 4).

**Claim 17:**

Schein teaches a character screen, the main screen, the relation screen, and the main scene screen being displayed using a video data structure (fig. 4a).

Schein teaches a visualization DS which includes a highlight view DS for display for displaying event data by a highlight and a key frame view DS for displaying event data as key frames, wherein the view DS for displaying event data as key frames, wherein the highlight view DS is organized into multiple levels which enables a display of multi-levels of highlight data and wherein the key frame view DS is organized into multiple levels which enables a display of multi-levels of summarized data (fig. 4a, #110).

Schein teaches a syntactic structure DS which includes information for displaying actual video segments of a video (fig. 4a, #110).

Schein teaches a semantic structure DS which includes additional information describing a video (fig. 4a). Readable information uses the semantic structure DS for providing additional information.

**Claim 18:**

Schein teaches a selection screen wherein the main scene screen displays either one or both main significant events or secondary significant events corresponding to

said relation selected from the relation screen, according to a user selection through said selection screen (fig. 4a, #102).

**Claim 19:**

Schein teaches a selection screen wherein the relation screen displaying constant relations and variable relations corresponding a relation type selected by a user through said selection screen (fig. 4a, #102).

**Claim 20:**

Yeo teaches that a relation type may be one of a family relation, a business relation, or a social relation (fig. 4).

***Conclusion***

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J Joseph whose telephone number is 703-305-3917. The examiner can normally be reached Mondays through Fridays from 7:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid can be reached on 703-308-0640. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

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Art Unit: 2174

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tjj  
April 7, 2003

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